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72. Altitudes between Lake Superior and the Rocky Mountains, by Warren Upham. 1891. 8°. 229 pp. Price 20 cents.
73. The Viscosity of Solids, by Carl Barus. 1891. 8°. xii, 139 pp. 6 pl. Price 15 cents.
74. The Minerals of North Carolina, by Frederick Augustus Genth. 1891. 8°. 119 pp. Price 15 cents.
75. Record of North American Geology for 1887 to 1889, inclusive, by Nelson Horatio Darton. 1891. 8°. 173 pp. Price 15 cents.
76. A Dictionary of Altitudes in the United States (second edition), compiled by Henry Gannett, chief topographer. 1891. 8°. 393 pp. Price 25 cents.
77. The Texan Permian and its Mesozoic Types of Fossils, by Charles A. White. 1891. 8°. 51 pp. 4 pl. Price 10 cents.
78. A report of work done in the Division of Chemistry and Physics, mainly during the fiscal year 1889-90. F. W. Clarke, chief chemist. 1891. 8°. 131 pp. Price 15 cents.
79. A Late Volcanic Eruption in Northern California and its Peculiar Lava, by J. S. Diller. 1891. 8°. 33 pp. 17 pl. Price 10 cents.
80. Correlation papers—Devonian and Carboniferous, by Henry Shaler Williams. 1891. 8°. 279 pp. Price 20 cents.
81. Correlation papers—Cambrian, by Charles Doolittle Walcott. 1891. 8°. 447 pp. 3 pl. Price 25 cents.
82. Correlation papers—Cretaceous, by Charles A. White. 1891. 8°. 273 pp. 3 pl. Price 20 cents.
83. Correlation papers—Eocene, by William Bullock Clark. 1891. 8°. 173 pp. 2 pl. Price 15 cents.
84. Correlation papers—Neocene, by W. H. Dall and G. D. Harris. 1892. 8°. 349 pp. 3 pl. Price 25 cents.
85. Correlation papers—The Newark System, by Israel Cook Russell. 1892. 8°. 344 pp. 13 pl. Price 25 cents.
86. Correlation papers—Archean and Algonkian, by C. R. Van Hise. 1892. 8°. 549 pp. 12 pl. Price 25 cents.
89. A report of work done in the Division of Chemistry and Physics, mainly during the fiscal year 1890-91. F. W. Clarke, chief chemist. 1892. 8°. 77 pp. Price 10 cents.
91. Record of North American Geology for 1890, by Nelson Horatio Darton. 1891. 8°. 88 pp. Price 10 cents.
92. The Compressibility of Liquids, by Carl Barus. 1892. 8°. 96 pp. 29 pl. Price 10 cents.
93. Some Insects of Special Interest from Florissant, Colorado, and other points in the Tertiaries of Colorado and Utah, by Samuel Hubbard Scudder. 1892. 8°. 35 pp. 3 pl. Price 5 cents.
94. The Mechanism of Solid Viscosity, by Carl Barus. 1892. 8°. 138 pp. Price 15 cents.
95. Earthquakes in California in 1890 and 1891, by Edward Singleton Holden. 1892. 8°. 31 pp. Price 5 cents.
96. The Volume Thermodynamics of Liquids, by Carl Barus. 1892. 8°. 100 pp. Price 10 cents.
97. The Mesozoic Echinodermata of the United States, by William Bullock Clark. 1893. 8°. 207 pp. 50 pl. Price 20 cents.
98. Flora of the Outlying Carboniferous Basins of Southwestern Missouri, by David White. 1893. 8°. 139 pp. 5 pl. Price 15 cents.
99. Record of North American Geology for 1891, by Nelson Horatio Darton. 1892. 8°. 73 pp. Price 10 cents.
100. Bibliography and Index of the Publications of the U. S. Geological Survey, 1879-1892, by Philip Creveling Warman. 1893. 8°. 495 pp. Price 25 cents.
101. Insect Fauna of the Rhode Island Coal Field, by Samuel Hubbard Scudder. 1893. 8°. 27 pp. 2 pl. Price 5 cents.
102. A Catalogue and Bibliography of North American Mesozoic Invertebrata, by Cornelius Breckinridge Boyle. 1893. 8°. 315 pp. Price 25 cents.
103. High Temperature Work in Igneous Fusion and Ebullition, chiefly in relation to pressure, by Carl Barus. 1893. 8°. 57 pp. 9 pl. Price 10 cents.
104. Glaciation of the Yellowstone Valley north of the Park, by Walter Harvey Weed. 1893. 8°. 41 pp. 4 pl. Price 5 cents.
105. The Laramie and the overlying Livingston Formation in Montana, by Walter Harvey Weed, with Report on Flora, by Frank Hall Knowlton. 1893. 8°. 68 pp. 6 pl. Price 10 cents.

106. *The Colorado Formation and its Invertebrate Fauna*, by T. W. Stanton. 1893. 8°. 238 pp. 45 pl. Price 20 cents.
107. *The Trap Dikes of the Lake Champlain Region*, by James Furman Kemp and Vernon Freeman Marsters. 1893. 8°. 62 pp. 4 pl. Price 10 cents.
108. *A Geological Reconnaissance in Central Washington*, by Israel Cook Russell. 1893. 8°. 108 pp. 12 pl. Price 15 cents.
109. *The Eruptive and Sedimentary Rocks on Pigeon Point, Minnesota, and their contact phenomena*, by William Shirley Bayley. 1893. 8°. 121 pp. 16 pl. Price 15 cents.
110. *The Paleozoic Section in the vicinity of Three Forks, Montana*, by Albert Charles Peale. 1893. 8°. 56 pp. 6 pl. Price 10 cents.
111. *Geology of the Big Stone Gap Coal Field of Virginia and Kentucky*, by Marius R. Campbell. 1893. 8°. 106 pp. 6 pl. Price 15 cents.
112. *Earthquakes in California in 1892*, by Charles D. Perrine. 1893. 8°. 57 pp. Price 10 cents.
113. *A report of work done in the Division of Chemistry during the fiscal years 1891-'92 and 1892-'93*. F. W. Clarke, chief chemist. 1893. 8°. 115 pp. Price 15 cents.
114. *Earthquakes in California in 1893*, by Charles D. Perrine. 1894. 8°. 23 pp. Price 5 cents.
115. *A Geographic Dictionary of Rhode Island*, by Henry Gannett. 1894. 8°. 31 pp. Price 5 cents.
116. *A Geographic Dictionary of Massachusetts*, by Henry Gannett. 1894. 8°. 126 pp. Price 15 cents.
117. *A Geographic Dictionary of Connecticut*, by Henry Gannett. 1894. 8°. 67 pp. Price 10 cents.
118. *A Geographic Dictionary of New Jersey*, by Henry Gannett. 1894. 8°. 131 pp. Price 15 cents.
119. *A Geological Reconnaissance in Northwest Wyoming*, by George Homans Eldridge. 1894. 8°. 72 pp. 4 pl. Price 10 cents.
120. *The Devonian System of Eastern Pennsylvania and New York*, by Charles S. Prosser. 1894. 8°. 81 pp. 2 pl. Price 10 cents.
121. *A Bibliography of North American Paleontology*, by Charles Rollin Keyes. 1894. 8°. 251 pp. Price 20 cents.
122. *Results of Primary Triangulation*, by Henry Gannett. 1894. 8°. 412 pp. 17 pl. Price 25 cents.
123. *A Dictionary of Geographic Positions*, by Henry Gannett. 1895. 8°. 183 pp. 1 pl. Price 15 cents.
124. *Revision of North American Fossil Cockroaches*, by Samuel Hubbard Scudder. 1895. 8°. 176 pp. 12 pl. Price 15 cents.
125. *The Constitution of the Silicates*, by Frank Wigglesworth Clarke. 1895. 8°. 109 pp. Price 15 cents.
126. *A Mineralogical Lexicon of Franklin, Hampshire, and Hampden counties, Massachusetts*, by Benjamin Kendall Emerson. 1895. 8°. 180 pp. 1 pl. Price 15 cents.
127. *Catalogue and index of Contributions to North American Geology, 1732-1891*, by Nelson Horatio Darton. 1896. 8°. 1045 pp. Price 60 cents.
128. *The Bear River Formation and its Characteristic Fauna*, by Charles A. White. 1895. 8°. 108 pp. 11 pl. Price 15 cents.
129. *Earthquakes in California in 1894*, by Charles D. Perrine. 1895. 8°. 25 pp. Price 5 cents.
130. *Bibliography and Index of North American Geology, Paleontology, Petrology, and Mineralogy for 1892 and 1893*, by Fred Boughton Weeks. 1896. 8°. 210 pp. Price 20 cents.
131. *Report of Progress of the Division of Hydrography for the calendar years 1893 and 1894*, by Frederick Haynes Newell, topographer in charge. 1895. 8°. 126 pp. Price 15 cents.
132. *The Disseminated Lead Ores of Southeastern Missouri*, by Arthur Winslow. 1896. 8°. 31 pp. Price 5 cents.
133. *Contributions to the Cretaceous Paleontology of the Pacific Coast: The Fauna of the Knoxville Beds*, by T. W. Stanton. 1895. 8°. 132 pp. 20 pl. Price 15 cents.
134. *The Cambrian Rocks of Pennsylvania*, by Charles Doolittle Walcott. 1896. 8°. 43 pp. 15 pl. Price 5 cents.
- In press:*
135. *Bibliography and Index of North American Geology, Paleontology, Petrology, and Mineralogy for the year 1894*, by F. B. Weeks.
136. *Volcanic Rocks of South Mountain, Pennsylvania*, by Florence Bascom.
137. *Geology of the Fort Riley Military Reservation, Kansas*, by Robert Hay.
138. *Artesian-well Prospects in the Atlantic Coastal Plain Region*, by N. H. Darton.
139. *Geology of the Castle Mountain Mining District, Montana*, by W. H. Weed and L. V. Pirsson.
140. *Report of Progress of the Division of Hydrography for the calendar year 1895*, by Frederick Haynes Newell, hydrographer in charge.
141. *The Eocene Deposits of the Middle Atlantic Slope in Delaware, Maryland, and Virginia*, by William Bullock Clark.
142. *A Brief Contribution to the Geology and Paleontology of Northwestern Louisiana*, by T. Wayland Vaughan.
143. *A Bibliography of Clays and the Ceramic Arts*, by John C. Branner.
- In preparation:*
- *The Moraines of the Missouri Coteau and their attendant deposits*, by James Edward Todd.
- *The Potomac Formation in Virginia*, by W. M. Fontaine.

Mineral Resources. 50 cents.

Mineral Resources. Price 60 cents.

Mineral Resources. vii, 576 pp. 80 cents.

Mineral Resources. Price 50 cents.

Mineral Resources. On March 2, 1896.

Mineral Resources. "Provided, That as a part of the report in compliance with the Calendar Year 1895, the money received by the Treasury for the sale of the Survey, or in connection with the Survey should be applied to the purchase of the Survey."

WASHINGTON, D. C.

ADVERTISEMENT.

VII

STATISTICAL PAPERS.

Mineral Resources of the United States, 1882, by Albert Williams, jr. 1883. 8°. xvii, 813 pp. Price 50 cents.

Mineral Resources of the United States, 1883 and 1884, by Albert Williams, jr. 1885. 8°. xiv, 1016 pp. Price 60 cents.

Mineral Resources of the United States, 1885. Division of Mining Statistics and Technology. 1886. 8°. vii, 576 pp. Price 40 cents.

Mineral Resources of the United States, 1886, by David T. Day. 1887. 8°. viii, 813 pp. Price 50 cents.

Mineral Resources of the United States, 1887, by David T. Day. 1888. 8°. vii, 802 pp. Price 50 cents.

Mineral Resources of the United States, 1888, by David T. Day. 1890. 8°. vii, 652 pp. Price 50 cents.

Mineral Resources of the United States, 1889 and 1890, by David T. Day. 1892. 8°. viii, 671 pp. Price 50 cents.

Mineral Resources of the United States, 1891, by David T. Day. 1893. 8°. vii, 630 pp. Price 50 cents.

Mineral Resources of the United States, 1892, by David T. Day. 1893. 8°. vii, 850 pp. Price 50 cents.

Mineral Resources of the United States, 1893, by David T. Day. 1894. 8°. viii, 810 pp. Price 50 cents.

On March 2, 1893, the following provision was included in an act of Congress:

"Provided, That hereafter the report of the mineral resources of the United States shall be issued as a part of the report of the Director of the Geological Survey."

In compliance with this legislation, the report Mineral Resources of the United States for the Calendar Year 1894 forms Parts III and IV of the Sixteenth Annual Report of the Survey.

The money received from the sale of these publications is deposited in the Treasury, and the Secretary of the Treasury declines to receive bank checks, drafts, or postage stamps; all remittances, therefore, must be by POSTAL NOTE or MONEY ORDER, made payable to the Director of the U. S. Geological Survey, or in CURRENCY, for the exact amount. Correspondence relating to the publications of the Survey should be addressed

TO THE DIRECTOR OF THE

UNITED STATES GEOLOGICAL SURVEY,

WASHINGTON, D. C.

WASHINGTON, D. C., May, 1896.

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No. 127



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1896

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UNITED STATES GEOLOGICAL SURVEY

CHARLES D. WALCOTT, DIRECTOR

CATALOGUE AND INDEX

OF CONTRIBUTIONS TO

NORTH AMERICAN GEOLOGY

1732-1891

BY

NELSON HORATIO DARTON



WASHINGTON

GOVERNMENT PRINTING OFFICE

1896

CATALO

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CATALOGUE AND INDEX OF CONTRIBUTIONS TO NORTH AMERICAN GEOLOGY.

BY N. H. DARTON.

INTRODUCTION.

The scope of this work includes geologic literature published in North America, and such literature on North America (excepting Greenland and Central America) wherever published. Chronologically it includes publications from 1732 to those received prior to the close of 1891.

On pages 11-14 is given a list of serials examined. It covers the principal publications in which geologic contributions have appeared, excepting some odd volumes which were not accessible to me. In official literature there have been examined all the reports in Prime's catalogue,¹ with some additional and all later ones. Many privately published separate works are included, a few of which are known only from notices in reviews or book lists. Paleontologic papers which are purely biologic are not included, nor are papers on mineralogy in which rocks are not described or discussed.

The entries are comprised in two classes, which are arranged in single alphabetic sequence. They are as follows:

1. *Principal entries.*—These consist of full titles of separate contributions, classified by authors, with chronologic subarrangement, together with as much of the usual bibliographic information as appears necessary in a work of this kind. All composite works are segregated into the separate contributions of individual authors as far as practicable. The date is that of the volume imprint of the earliest regular publication of the contribution whenever possible. Accordingly, contributions published in proceedings of societies are given the imprint date of the volume in which they are contained. The size of the volume is given only when it is other than octavo. The extent of papers less than a page in length is indicated thus: ($\frac{1}{2}$ p.), ($\frac{1}{2}$ col.), (3 lines). Place of publication is given for official and separate publications and some obscure journals. Information which I have supplied is placed within brackets.

¹Catalogue of official reports on geological surveys of the United States and Territories and British North America. Am. Inst. Mining Engineers, Trans., vol. 7, pp. 455-522; vol. 8, pp. 466-478; vol. 9, pp. 621-633.

2. *Subject index references.*—These are geographic, stratigraphic, and miscellaneous geologic headings, under which are listed condensed titles of the papers, and the author's name for cross reference to the principal entry. The subarrangement is chronologic. A key to these references is given on pages 7-10. A few general text-books of geology and very general papers have not been indexed.

I am indebted to the catalogue by Prime, the lists of maps by Jules Marcou and J. B. Marcou,¹ lists of papers on the Lake Superior copper region by J. D. Whitney,² a bibliography of Texas, Arkansas, Louisiana, etc., by J. B. Marcou (in manuscript), and to many gentlemen for information or advice. I am also indebted for special courtesies to the librarians of the Academy of Natural Sciences at Philadelphia, the New York Academy of Sciences, the Boston Society of Natural History, the Astor Library of New York, and the Boston Public Library.

Additional references or information for a supplement to this catalogue will be gratefully received by the author, care of the United States Geological Survey, Washington, D. C., U. S. A.

¹ Bull. U. S. Geol. Survey No. 7, 1884.

² Bull. Mus. Comp. Zool. Harvard College, vol. 7, 1884.

Africa.
Alabama.
Alaska.
Arizona.
Arkansas.
Asia.
Australasia.
Bermuda.
California.
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Newfoun.
Labrador.
Manitoba.
British C.
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Central Ame.
Colorado.
Connecticut.
Dakotas.
Delaware.
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Europe.
Florida.
Georgia.
Hawaiian and
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CLASSIFIED KEY TO THE SUBJECT ENTRIES.

I. GEOGRAPHIC SUBJECTS.

- Africa.
- Alabama.
- Alaska.
- Arizona.
- Arkansas.
- Asia.
- Australasia.
- Bermuda.
- California.
- Canada, with subheadings as follows:
 - Provinces of Quebec and Ontario, and Canada in general.
 - New Brunswick.
 - Nova Scotia, Prince Edward Island, and Cape Breton Island.
 - Newfoundland.
 - Labrador.
 - Manitoba to Rocky Mountain region.
 - British Columbia.
 - Northern British America (and Greenland).
- Central America.
- Colorado.
- Connecticut.
- Dakotas.
- Delaware.
- East Indies.
- Europe.
- Florida.
- Georgia.
- Hawaiian and other Pacific islands.
- Idaho.
- Illinois.
- Indiana.
- Indian Territory (and Oklahoma).
- Iowa.
- Kansas.
- Kentucky.

Louisiana.
 Maine.
 Maryland (including District of Columbia).
 Massachusetts.
 Mexico.
 Michigan.
 Minnesota.
 Mississippi.
 Missouri.
 Montana.
 Nebraska.
 Nevada.
 New Hampshire.
 New Jersey.
 New Mexico.
 New York.
 North Carolina.
 Ohio.
 Oregon.
 Pennsylvania.
 Rhode Island.
 South America.
 South Carolina.
 Tennessee.
 Texas.
 Utah.
 Vermont.
 Virginias.
 Washington.
 West Indies.
 Wisconsin.
 Wyoming.

II. STRATIGRAPHIC SUBJECTS.

Archean and Algonkian (including all unclassified crystalline rocks with subheadings as follows:

New England.
 New York, Pennsylvania, New Jersey.
 Maryland to Alabama.
 Great Lakes region (Michigan, Wisconsin, Minnesota, and Canada contiguous to lakes Superior and Huron).
 West of the Mississippi River (excepting Minnesota).
 Eastern (and northern) Canada.
 Western Canada (Lake of the Woods region to the Pacific).
 General.

Cambrian, with subheadings as follows:

New England.

New
 South
 Lake
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New York, Pennsylvania, New Jersey.
 Southern Appalachians (Maryland to Alabama).
 Lakes Superior, Michigan, and Huron region.
 Dakota, Iowa, Nebraska.
 Missouri.

Texas.

Rocky Mountains to Pacific coast.

Canada (excepting adjoining Lake Superior).

Carboniferous, with subheadings as follows:

New England.

New York, Pennsylvania, Maryland, Virginia.

Ohio.

Kentucky, Tennessee, Alabama, Georgia.

Michigan.

Illinois, Indiana.

Iowa, Nebraska, Kansas, Missouri, Arkansas, Indian Territory,
 Texas.

Rocky Mountains to the Pacific coast.

Canada (including all of British America).

General.

Cretaceous, with subheadings as follows:

Atlantic coast region.

Gulf region (Alabama to Louisiana to Kentucky).

Dakota and Minnesota to Texas.

Rocky Mountains to Great Basin region.

Pacific States.

Canada.

General.

Devonian, with subheadings as follows:

New England.

Appalachian (New York to Alabama).

West of Appalachians to the Mississippi and Minnesota.

West of the Mississippi, excepting Minnesota.

Canada (including all of British America).

General.

Permian, with subheadings as follows:

Massachusetts to North Carolina.

Eastern Canada.

Dakota to Texas.

Rocky Mountain region.

California to Washington.

Western Canada and Alaska.

General.

Tertiary, with subheadings as follows:

New England.

New York.

Pennsylvania.

line rocks.

and Canada

acific).

New Jersey.

Maryland, Delaware, Virginia.

North Carolina, South Carolina, and Georgia region.

Gulf region, Florida to Texas and Arkansas.

Ohio, Indiana, Illinois, Kentucky, Tennessee.

Minnesota, Michigan, Wisconsin.

Iowa, Missouri, Nebraska, Kansas region.

Rocky Mountains to Great Basin.

Pacific States.

Eastern Canada.

Western British America.

Alaska.

General.

Silurian, with subheadings as follows:

New England.

Appalachian (New York to Alabama).

West of the Appalachians to the Mississippi River and Minnesota.

West of the Mississippi River, excepting Minnesota.

Canada (including all of British Columbia).

General.

Tertiary, with subheadings as follows:

Atlantic coast region (Massachusetts to Georgia).

Gulf region (Florida to Texas and Kentucky).

Dakotas, Nebraska, Kansas.

Rocky Mountains to Great Basin.

Pacific States.

Canada.

Arctic and Alaska.

West Indies.

General.

III. OTHER SUBJECTS.

Geologic philosophy, with subheadings as follows:

Chemic geology (excepting metamorphism and rock decay).

Origin of coal, petroleum, etc.

Dynamic geology.

Petrology.

Glaciology.

Geological climate.

Volcanism.

Rock decay.

Degradation.

Sedimentation.

Geomorphy.

Coral reefs.

Miscellaneous.

Petrography.

Akademie der
 Albany Instit
 — Transa
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LIST OF SERIALS EXAMINED.

- Akademie der Wissenschaften, Sitzungsberichte, vols. 1-68. Wien.
- Albany Institute, Proceedings, vols. 1, 2, and parts 1-2 of vol. 3. Albany, N. Y.
- Transactions, vols. 1-10. Albany, N. Y.
- American Academy of Arts and Sciences, Proceedings, vols. 1-26. Boston, Mass.
- Memoirs, 1st series, and vols. 1-9, new series. Boston, Mass.
- American Anthropologist, vols. 1-2. Washington, D. C.
- American Association for the Advancement of Science, Proceedings, vols. 1-39. Salem, Mass.
- American Association of Geologists and Naturalists, Transactions, vol. 1 to end of 1848. Boston.
- American Chemical Journal, vols. 1-5. New York.
- American Geographical Society, Bulletin, vols. 19-21. New York.
- American Geologist, vols. 1-8. Minneapolis, Minn.
- American Journal of Conchology, vols. 1-7. Philadelphia.
- American Institute of Mining Engineers, Transactions, vols. 1-19. Easton, Pa., and New York, N. Y.
- American Journal of Science, 1st series, 2d series, and vols. 1-42, 3d series. New Haven, Conn.
- American Mineralogical Journal (Bruce), 1 vol.
- American Mining Gazette and Geological Magazine, 1 vol. New York.
- American Museum of Natural History, Bulletins, vol. 1 to vol. 3, p. 194. New York.
- American Naturalist, vols. 1-25. Philadelphia.
- American Philosophical Society, Proceedings, vols. 1-29 (to No. 135). Philadelphia.
- Transactions, 1st series, vols. 1-16 (part 3).
- American Quarterly Journal of Agriculture and Science, vols. 1-7. New York.
- Annals of Science, vol. 1; vol. 2, Nos. 1-4. Cleveland, Ohio.
- Appalachia, vols. 1-6. Boston.
- Boston Journal of Natural History, vols. 1-7. Boston.
- Boston Society of Natural History, Proceedings, vols. 1-25 (to part 2). Boston.
- Memoirs, vols. 1-4, No. 11, and anniversary volume.
- British Association for the Advancement of Science, Reports, vols. 1-60. London.
- Brookville Society of Natural History, Proceedings, Nos. 1-2. Brookville, Ind.
- Buffalo Society of Natural History, Bulletin, vols. 1-5 (to No. 3). Buffalo, N. Y.
- California Academy of Sciences, Transactions, vols. 1-7. San Francisco.
- Memoirs, vols. 1-2.
- Bulletins, vols. 1-5.
- Bulletins, vols. 1-2.
- Proceedings, vols. 1-2.
- Canada, Royal Society, Transactions, vols. 1-8. Montreal.
- Canadian Institute and Canadian Journal, 1st series, vols. 1-3; new series, vols. 1-15. Toronto.
- Proceedings, vols. 1-7. Toronto.
- Transactions, vol. 1. Toronto.
- Canadian Naturalist, 1st series; new series, vols. 1-10. Montreal.
- Canadian Record of Science, vols. 1-4. Montreal.
- Central Ohio Scientific Association, Proceedings, vol. 1, part 1.

- Central Ohio Scientific Society, Proceedings, vol. 1. Urbana.
 Chicago Academy of Science, Bulletin, vol. 1, Nos. 1-4, 6, 9. Chicago.
 — Transactions, vol. 1.
 Cincinnati Society of Natural History, Journal, vols. 1-14, No. 2.
 Cincinnati Quarterly Journal of Science, vols. 1-2.
 Cleveland Academy of Sciences, Proceedings, No. 1.
 Colorado Academy of Sciences, Proceedings, vols. 1-3 (part 2). Denver.
 Congrès Géologique International, Comptes Rendus, 1st, 3d, and 4th sessions.
 Connecticut Academy of Sciences, Transactions, vols. 1-5. New Haven, Conn.
 — Memoirs, vols. 1-7; vol. 8, part 1.
 Cornwall Royal Geological Society, Transactions, vols. 1-11. Penzance.
 Davenport Academy of Sciences, Proceedings, vols. 1-5, part 1. Davenport, Iowa.
 Denison University, Scientific Laboratories, Bulletin, vols. 1-5. Granville, Ohio.
 Des Moines Academy of Sciences, Bulletin, vol. 1, No. 1. Des Moines, Iowa.
 Deutsche Geologische Gesellschaft, Zeitschrift, vols. 1-42. Berlin.
 E. M. Museum of Geology and Archeology, College of New Jersey, vol. 1, No. 1. Princeton.
 Edinburgh Geological Society, Transactions, vols. 1-6 (to No. 2).
 Elisha Mitchell Scientific Society, Journal, 1883-1890. Raleigh, N. C.
 Elliott Society of Natural History, Journal, vol. 1, Nos. 1-2. Charleston, S. C.
 — Proceedings, vol. 1, vol. 2 (to 1886).
 Engineering and Mining Journal, vols. 32-37, 40-52. New York.
 Essex Institute, Proceedings, vols. 1-6. Salem, Mass.
 — Bulletin, vols. 1-22 (to No. 6).
 Essex Natural History Society, Journal, vol. 1. Salem, Mass.
 Forum, 1888, 1890. New York.
 Franklin Institute, Proceedings, vols. 1-127. Philadelphia.
 Geological Society of America, Bulletin, vols. 1-2. Washington.
 Geologists' Association, Proceedings, vols. 1-12. London.
 Geological Magazine, vols. 2-12; 2d decade, vols. 1-10; 3d decade, vols. 1-8. London.
 Geological Society, Transactions, vols. 1-6, 2d series, vols. 1-7. London.
 — Quarterly Journal, vols. 1-47.
 Geologist, The, 1842-1843. London.
 Geological Society of Dublin, Journal, vols. 1-10.
 Gesellschaft für Erdkunde zu Berlin, Zeitschrift, vols. 1-21.
 Glasgow Geological Society, Transactions, vols. 1-9 (to part 1).
 Geological and Scientific Bulletin, vol. 1, Nos. 2-7, 9-12. Austin, Tex.
 Geologiska Föreningens i Stockholm, Förhandlingar, vols. 8-12, 1-3.
 Hamilton Association, Journal and Proceedings, vols. 1-3. Hamilton, Ontario.
 Hartford Natural History Society, Transactions, No. 1. Hartford, Conn.
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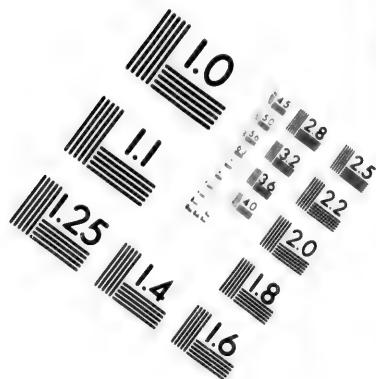
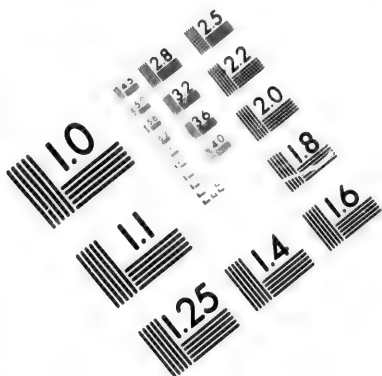
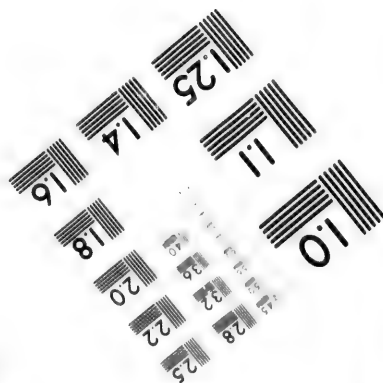
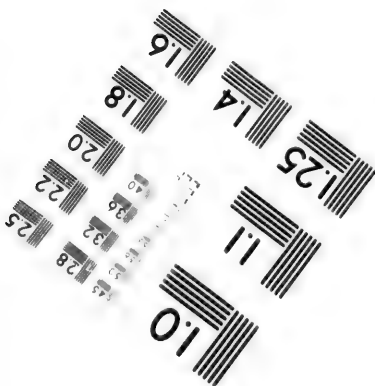
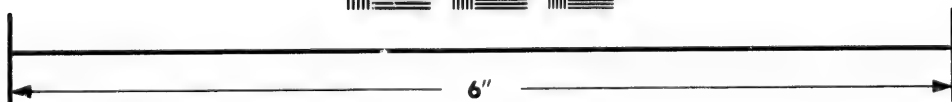
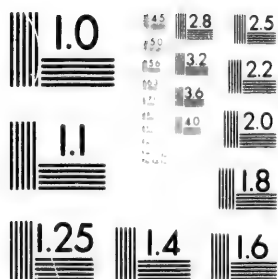


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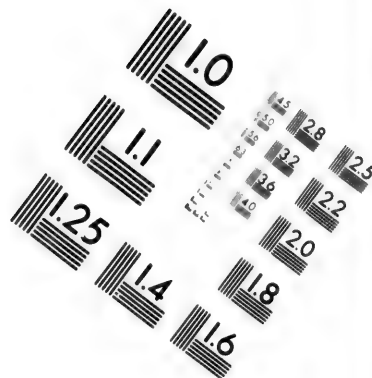
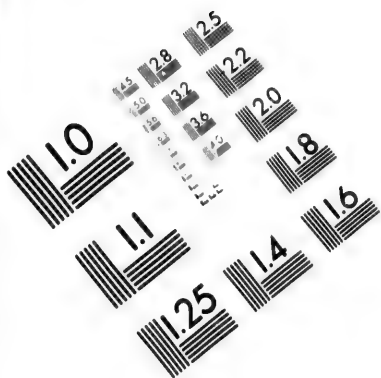
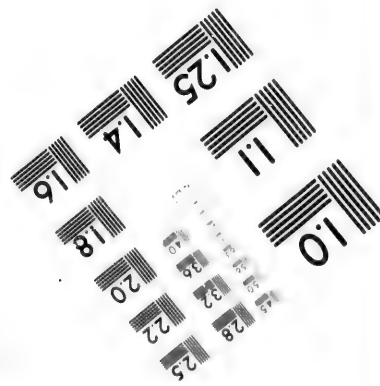
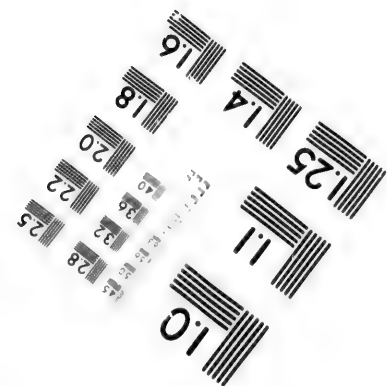
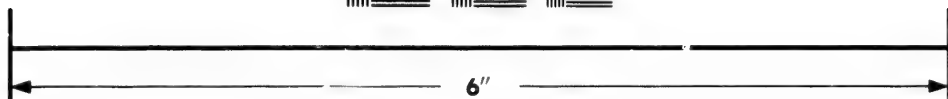
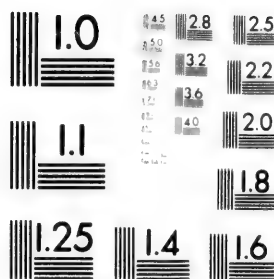


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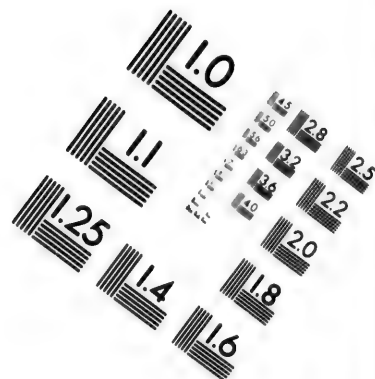
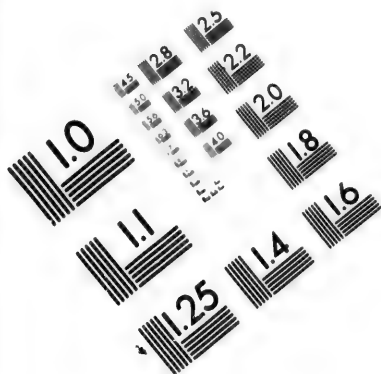
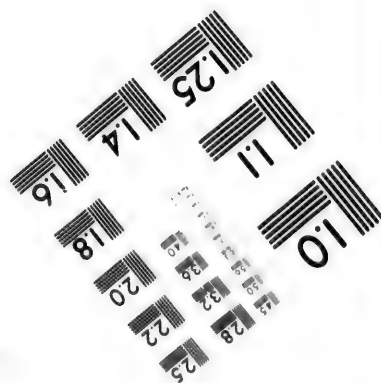
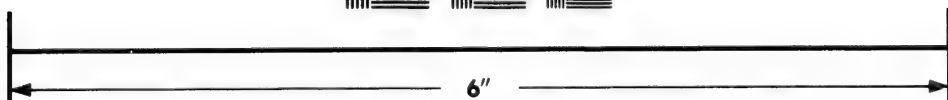
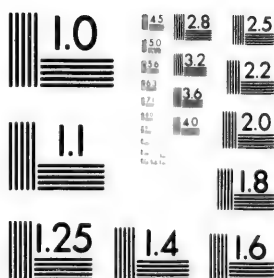


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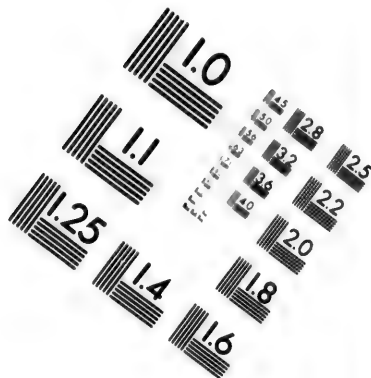
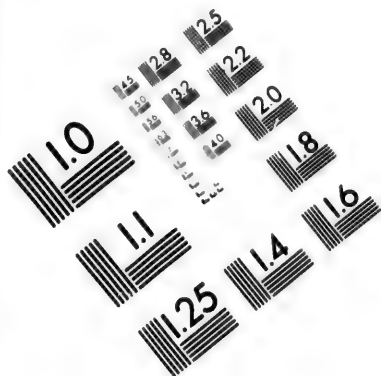
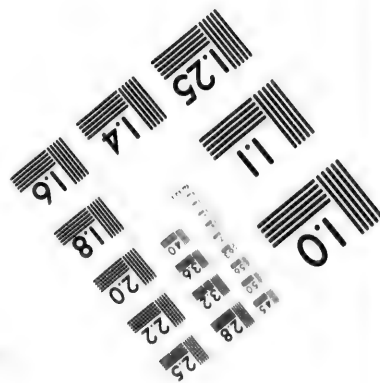
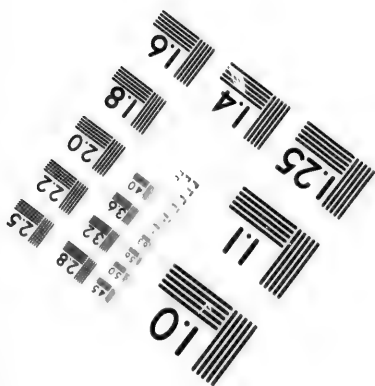
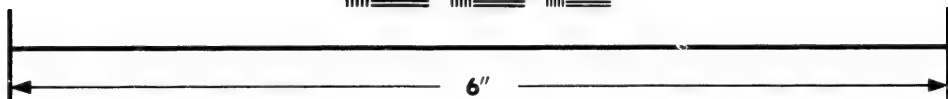
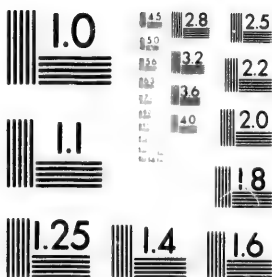


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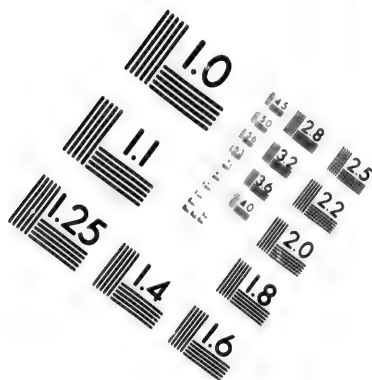
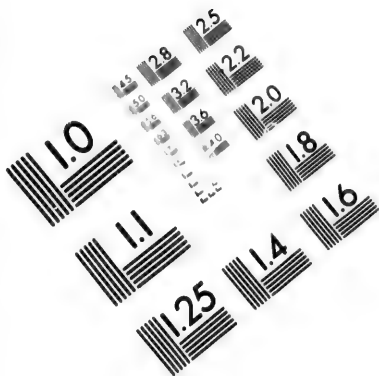
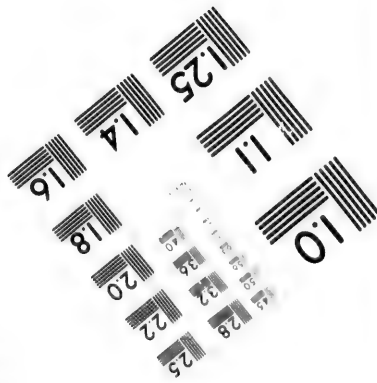
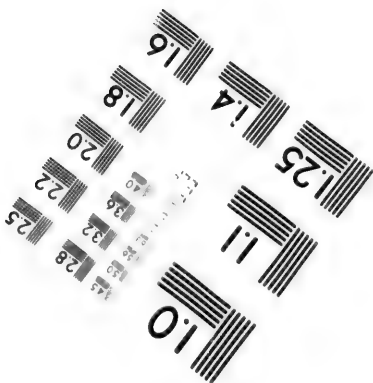
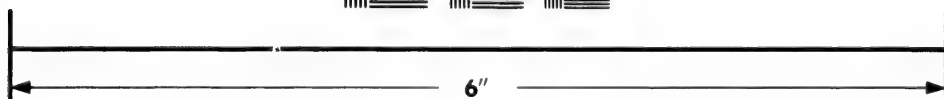
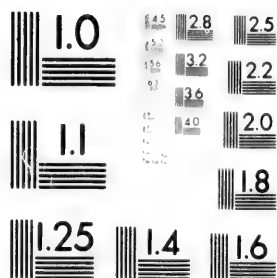


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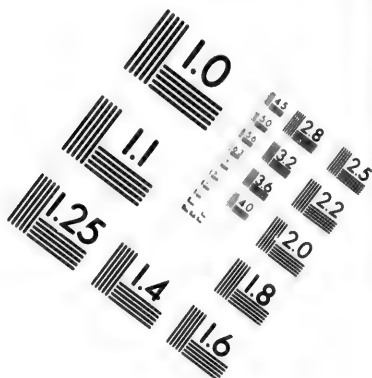
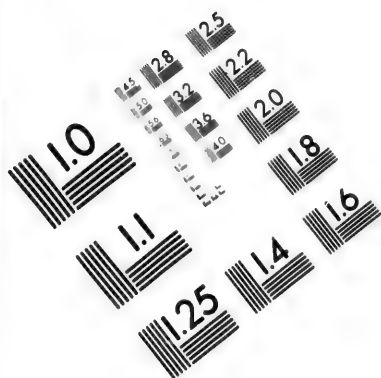
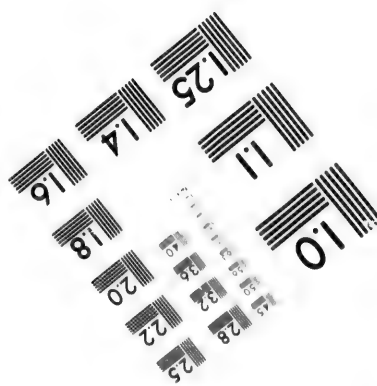
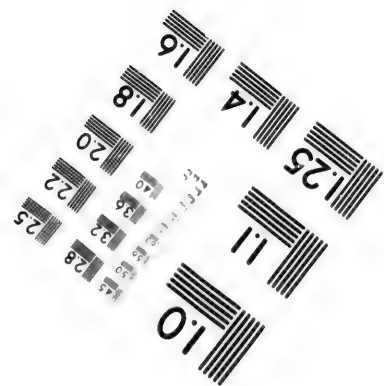
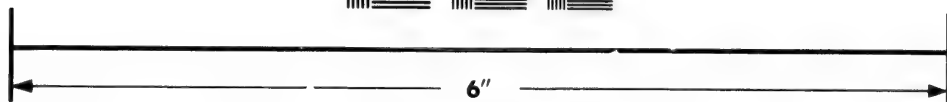
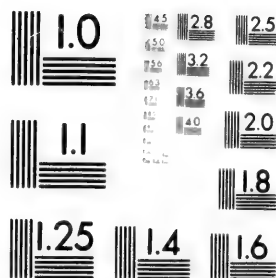


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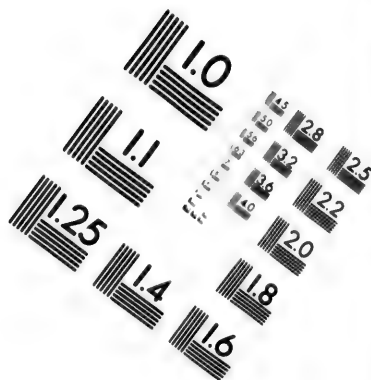
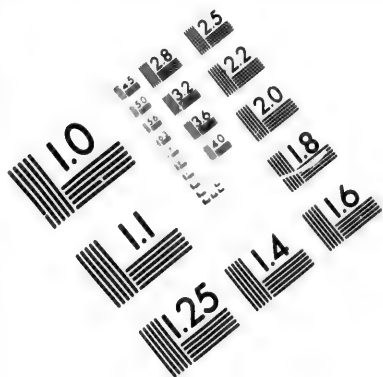
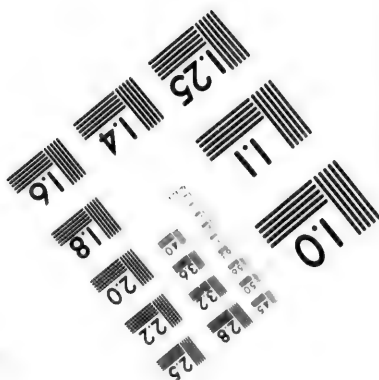
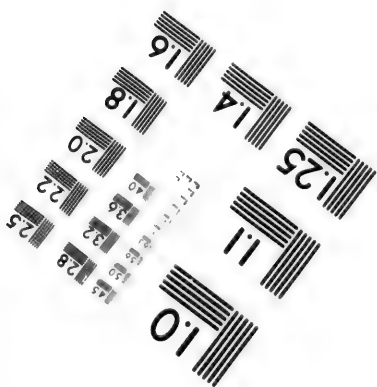
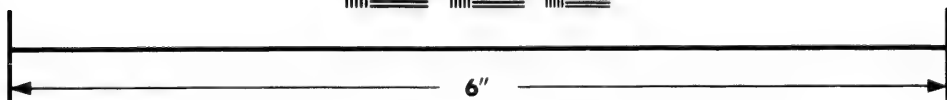
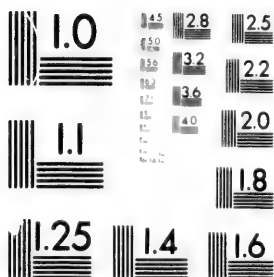


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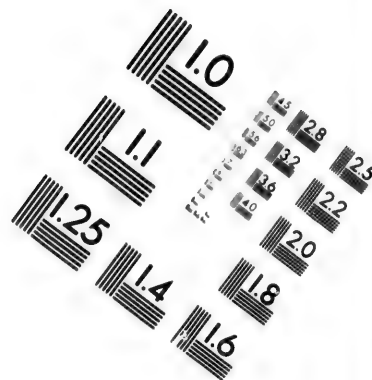
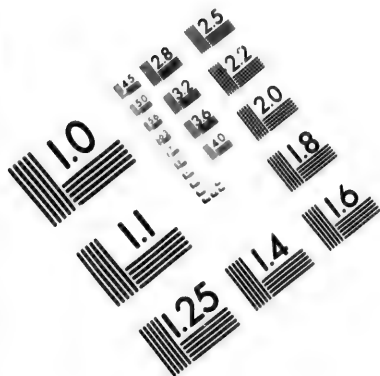
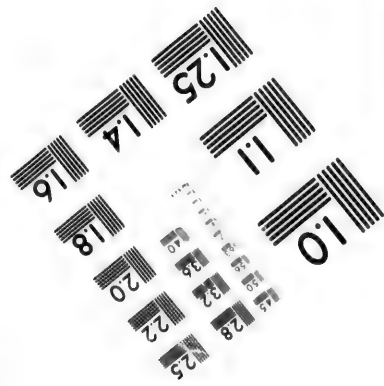
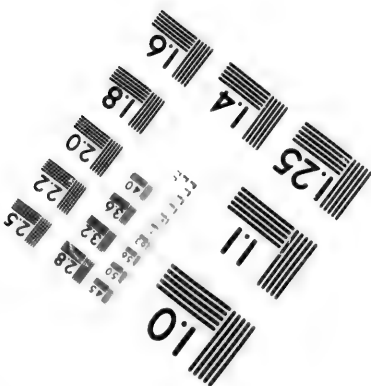
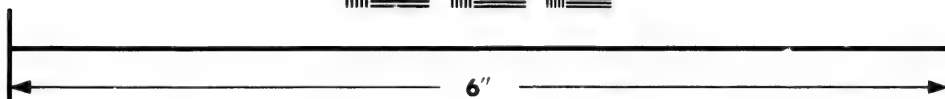
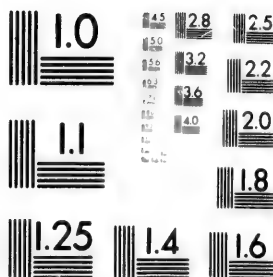


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1869. Geology of portions of Minnesota, Hall, J.

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- Geology of Ramsey County, Winchell, N. H.
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- Cretaceous in Minnesota, Winchell, N. H.
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1880. Le Kettle moraine, Chamberlin, T. C.
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Some points in region about Beloit, Wis., Sweezy.
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Drumlins, Davis, W. M.
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MINNESOTA, WISCONSIN, MICHIGAN—
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Minneapolis and St. Paul, Hall, C. W.
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IOWA, MISSOURI, NEBRASKA, KANSAS
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1891. Boulder of copper in central Missouri, Kirkpatrick.
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1848. Reconnaissance from Leavenworth to San Diego, Emory.
1854. Exploration between thirty-eighth and forty-first parallel in 1853-54, Schiel.
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1861. Report on Colorado River, Newberry.
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1863. Silver mines of Arizona, Pumphelly.
1866. Gaylussite from Nevada, Silliman.
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ROCKY MOUNTAIN TO GREAT BASIN
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- History of Lake Bonneville, Gilbert, G. K.
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- Post-Glacial joints, Gilbert, G. K.
- Great deposit of mud and lava, Cope.
- Examination of upper Columbia River, Symons.
- Sulphur deposits in Utah and Nevada, Russell, I. C.

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Playas and playa lakes, Russell, I. C.
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Topographic features of lake shores, Gilbert, G. K.
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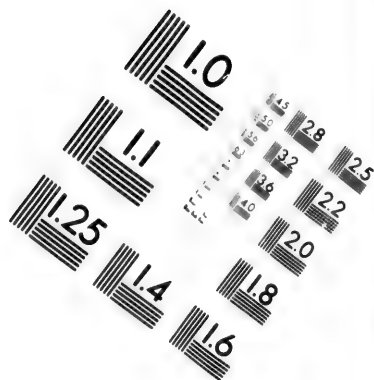
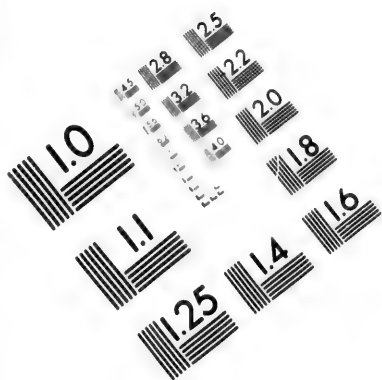
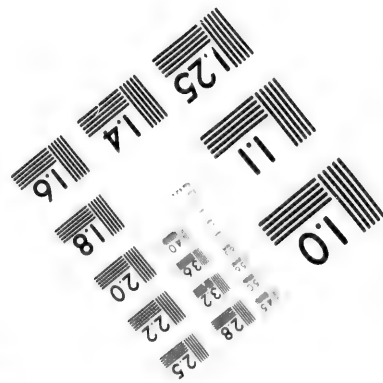
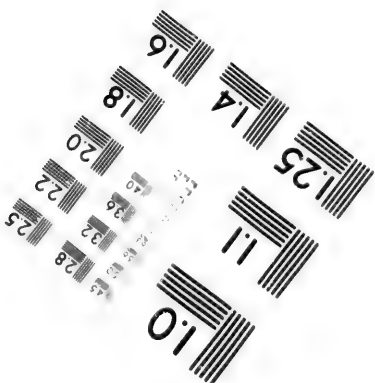
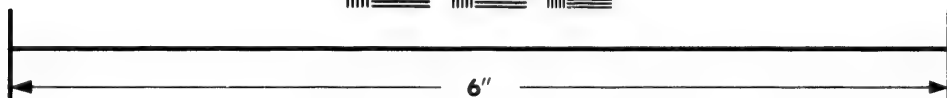
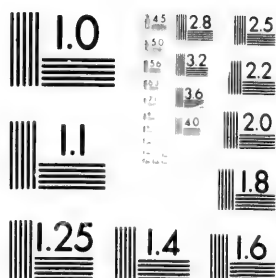


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1836. Review of report by Featherstonhaugh, P.

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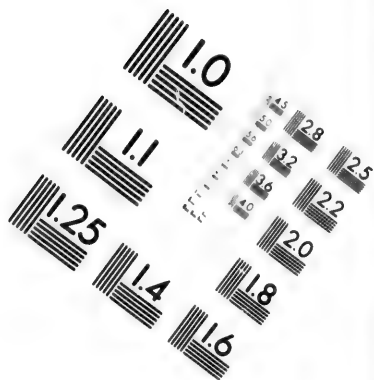
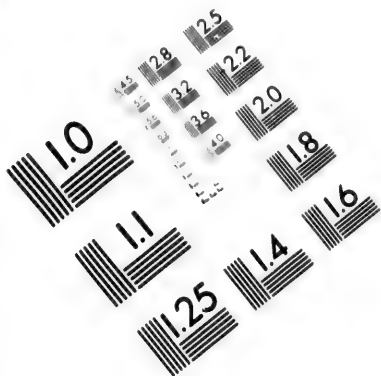
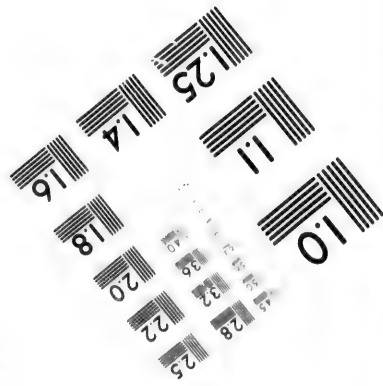
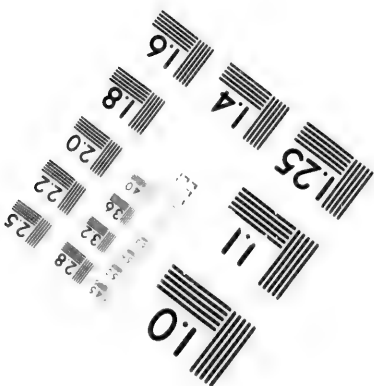
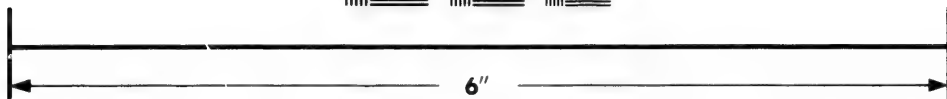
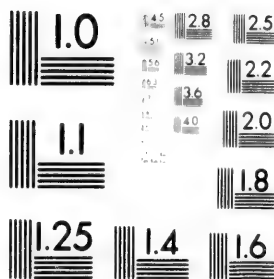


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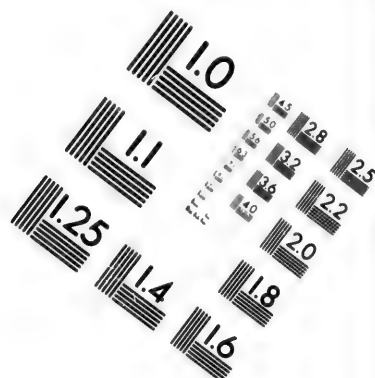
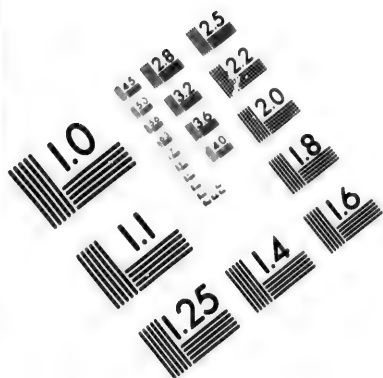
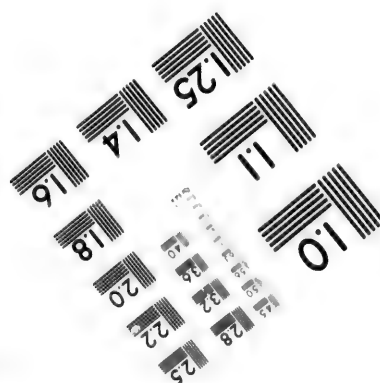
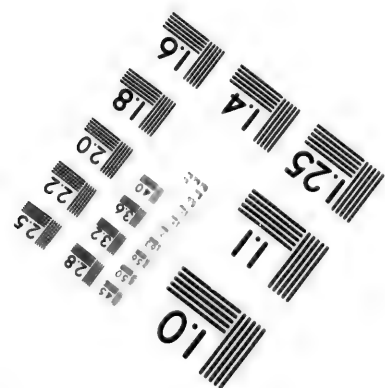
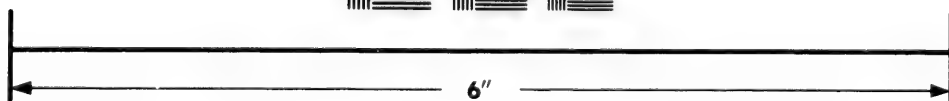
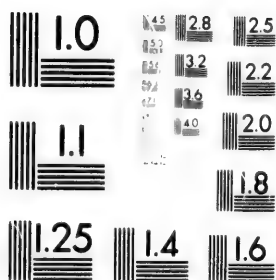


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